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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,698	09/25/2003	Eduard K. de Jong	SUN-P7008	9219
24209 7590 05/27/2009 GUNNISON MCKAY & HODGSON, LLP 1900 GARDEN ROAD SUITE 220 MONTEREY, CA 93940				
EXAMINER HOANG, DANIEL L				
ART UNIT 2436		PAPER NUMBER		
MAIL DATE 05/27/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/672,698

**Applicant(s)**

DE JONG, EDUARD K.

**Examiner**

DANIEL L. HOANG

**Art Unit**

2436

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3 to 4, 8 to 10, 12, 14, 15, 19 to 21, 23, 25, 26, 30 to 32, 34, 36, 37, and 41 to 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 1, 3 to 4, 8 to 10, 12, 14, 15, 19 to 21, 23, 25, 26, 30 to 32, 34, 36, 37, and 41 to 43 .

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 2/04/09 have been fully considered but they are not persuasive.

Applicant argues the following:

a) Viewing the IC card's signing keys as the "Target ID," fails to demonstrate that Spies teaches the invention in the same level of detail as recited in the claims. In particular, the rejection has failed to cite any teaching of a smart card that includes a virtual machine where the target ID is a virtual machine ID.

b) The rejection failed to cite any teaching of a virtual machine on the IC card of Spies. Also the claims recite an application provider and a user device, while Spies teaches the IC card, a video merchant and a video content provider. The rejection has failed to identify two parties in Spies that read on these claims.

In response to a), examiner respectfully disagrees. A virtual machine is software implementation of a machine (computer) that executes programs like a real machine. While the Spies reference does not make use of the exact words "virtual machine", it is clear that Spies' invention includes the functions of a virtual machine. For example, col. 3, lines 1-4 cites software implementations such as decryption capabilities. Spies further teaches at col. 3, lines 5-18 purchasing and viewing capabilities. Security implementations are also cited at col. 3, lines 19-35. Examiner deems that it is clear from this that Spies teaches a smart card that includes a virtual machine. As far as the target ID being a virtual machine ID, paragraph 93 of applicant's specification cites that a virtual machine identifier specifies a user device that will execute an obfuscated application program. The Spies invention teaches that the encrypted program is viewed by utilizing a set of keys (packet keys and program keys) that are unique to each IC card (col. 3, lines 64-37 and col. 4, lines 1-7). The keys used to encrypt and decrypt the program specify which user device is verified to view the program. Examiner views this to be analogous to that which is claimed by applicant.

In response to b), examiner respectfully disagrees. The issue with the virtual machine has been addressed above. In regards to the claims citing an application provider and a user device, the merchant computing unit (col. 2, lines 50-54) is viewed as analogous to the claimed application provider and the purchaser's computing unit (col. 3, lines 5-7) is viewed as analogous to the claimed "user device". While the exact words of "application provider" and "user device" are not used in the Spies reference, it is clear that the elements function in the same manner and thus anticipation is clearly well founded.

Based on the above responses, the prior art rejections of the previous action are maintained.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 3 to 4, 8 to 9 to 10, 12, 14, 15, 19 to 20, 23, 25, 26, 30 to 32, 34, 36, 37, and 41 to 43 rejected under 35 U.S.C. 102(b) as being anticipated by Spies, US Patent No. 6055314.**

**As per claim 1, 3, 12, 14, 23, 25, 34, 36, Spies teaches:**

A method for enrolling for receipt of one or more obfuscated application programs, the method comprising:

issuing, from a user device to an application program provider, an enrollment request comprising a target ID, said enrollment request for receipt of one or more obfuscated application programs controlled by said application program provider, said target ID specifying said user device configured to execute said one or more obfuscated application programs for one or more services;

Art Unit: 2136

*[see col. 2, lines 62-67, and col. 3, lines 1-4, wherein the IC card is viewed as a "user device" and the video merchant is viewed as a "application program provider" and the video program is viewed as an "obfuscated application program"]*

*[see col. 3, lines 19-35, wherein the IC card's signing keys are viewed as the "Target ID"]*

obtaining, on said user device from said application program provider, a secret in response to said issuing; and

*see col. 2, lines 62-67, and col. 3, lines 1-4, wherein decryption capabilities are viewed as the "secret"]*

associating, on said user device, said secret with said application program provider, said secret for use in executing said one or more obfuscated application programs; and

*[see col. 3, lines 52-63]*

receiving, from said application program provider following said obtaining, said one or more obfuscated executable application programs,

*[see col. 3, lines 36-50]*

wherein said user device comprises a smart-card and said smart card comprises a virtual machine and said target ID comprises a VM ID.

*[see col. 2, lines 62-67, and col. 3, lines 1-4, wherein the IC card is a smart card]*

#### **As per claim 4, 15, 26, 37, Spies teaches:**

The method of claim 3 wherein said determining and said transferring form part of a key exchange protocol.

*[see col. 3, lines 19-35, public/private key exchange]*

#### **As per claim 8, 19, 30, 41, Spies teaches:**

A method for application program obfuscation, the method comprising:

determining a current obfuscation method based at least in part on a target ID, said target ID specifying a user device configured to execute said obfuscated application program;

Art Unit: 2136

*[see col. 3, lines 19-35, wherein the video program is encrypted with the purchaser's public signing key.]*

creating an obfuscated application program based at least in part on said current obfuscation method;

and

*[see col. 3, lines 19-35, wherein the video program is encrypted with the purchaser's public signing key.]*

sending said obfuscated application program to said user device.

*[see col.3, lines 36-50]*

wherein said user device comprises a smart-card and said smart card comprises a virtual machine and said target ID comprises a VM ID.

*[see col. 2, lines 62-67, and col. 3, lines 1-4, wherein the IC card is a smart card]*

#### **As per claim 9, 20, 31, 42, Spies teaches:**

The method of claim 8, further comprising receiving an application program request from said user device, said determining occurring in response to said receiving.

*[see rejection of claim 1, wherein the decryption capabilities are generated after the user requests the program.]*

#### **As per claim 10, 21, 32, 43, Spies teaches:**

The method of claim 8 wherein said method further comprises, after said creating, applying a cryptographic process to said obfuscated application program together with a cryptographic key to create an encrypted obfuscated application program; and said sending comprises sending said encrypted obfuscated application program.

*[see col. 3, lines 52-63, wherein each packet of the program is encrypted with a packet key and also with a program key]*

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Art Unit: 2136

### Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

\*. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulaney Street  
Alexandria, VA 22314

\*. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Hoang whose telephone number is 571-270-1019. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

*Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system,*



Art Unit: 2136

*see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).*

/Daniel L. Hoang/  
Examiner, Art Unit 2436

/Nasser G Moazzami/  
Supervisory Patent Examiner, Art Unit 2436